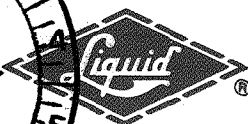


# MATERIAL SAFETY DATA SHEET

DPM 154-2

Gaseous Nitrogen

April 1986



## LIQUID CARBONIC

INDUSTRIAL/MEDICAL CORPORATION

135 SOUTH LA SALLE STREET • CHICAGO, ILLINOIS 60603-4282  
PHONE: (312) 855-2500

Emergency Phone Numbers: (312) 855-2500; CHEMTREC (800) 424-9300

### SECTION I--PRODUCT IDENTIFICATION

CHEMICAL NAME: Nitrogen  
COMMON NAME AND SYNONYMS: Gaseous Nitrogen, Nitrogen Gas,  $\text{GN}_2$   
CHEMICAL FAMILY: Inert Gas FORMULA:  $\text{N}_2$

### SECTION II--HAZARDOUS INGREDIENTS

MATERIAL	VOLUME %	CAS NO.	1985-6 ACGIH TLV UNITS
Nitrogen	99.9%	7727-37-9	Nitrogen is a simple asphyxiant.

### SECTION III--PHYSICAL DATA

BOILING POINT ( $^{\circ}\text{F.}$ )	-320.4 $^{\circ}$	SPECIFIC GRAVITY ( $\text{H}_2\text{O}=1$ )	0.809 @B.P.
VAPOR PRESSURE (mmHg.)	@-320.4 $^{\circ}$ - 760	% VOLATILE BY VOLUME	100.0
VAPOR DENSITY (AIR=1)	0.967	EVAPORATION RATE	Gas
SOLUBILITY IN WATER	Slightly	(BUTYL ACETATE=1)	
APPEARANCE AND ODOR	Colorless and Odorless		

### SECTION IV--FIRE AND EXPLOSION HAZARD DATA

	FLASH POINT (METHOD USED)	N/A	FLAMMABLE LIMITS	LEL	UEL
EXTINGUISHING MEDIA:	Non-Flammable Inert Gas				
SPECIAL FIRE FIGHTING PROCEDURES:	Non-flammable and will not support combustion.				
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Non-flammable. No unusual hazard except when compressed gas is exposed to a fire, containers may rupture violently if safety devices fail to relieve pressure.				

### SECTION V--HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: Nitrogen is non-toxic and is classified as a simple asphyxiant by displacement of oxygen.

EFFECTS OF OVEREXPOSURE: Dizziness, unconsciousness, death

EMERGENCY AND FIRST AID PROCEDURES: If inhaled removed to fresh air. Administer air or oxygen. Obtain prompt medical attention. Give cardiopulmonary resuscitation. Rescuers need to be concerned with their own safety in oxygen deficient areas. Use self-contained breathing equipment. Nitrogen can cause rapid suffocation. Oxygen levels should be maintained at greater than 18% by volume at normal atmospheric pressure which is equivalent to a partial pressure of 135mm Hg.

ROUTE(S) OF ENTRY:	INHALATION?	yes	SKIN?	INGESTION?
CARCINOGENICITY:	NTP? No	IARC MONOGRAPHS?	No	OSHA? No

---

## SECTION VI--REACTIVITY DATA

---

STABILITY: UNSTABLE ( ) STABLE (X)  
CONDITIONS TO AVOID: N/A  
INCOMPATIBILITY (MATERIALS TO AVOID): Inert except at high temperatures  
HAZARDOUS DECOMPOSITION PRODUCTS: None  
HAZARDOUS POLYMERIZATION: MAY OCCUR ( ) WON'T OCCUR (X)  
CONDITIONS TO AVOID: N/A

---

## SECTION VII--SPILL OR LEAK PROCEDURES

---

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:  
Evacuate all personnel from affected area. To enter spill area, use self-contained breathing equipment. Maintain adequate ventilation to avoid oxygen deficiency.

WASTE DISPOSAL METHOD: No waste disposal problem. Gas will diffuse into atmosphere.

---

## SECTION VIII--SPECIAL PROTECTION INFORMATION

---

RESPIRATORY PROTECTION:  
Self-contained breathing apparatus or pressure demand air supply mask.

VENTILATION: LOCAL EXHAUST (X) Use at points of release to maintain over 18% oxygen in air.  
MECHANICAL (GENERAL) ( )

PROTECTIVE GLOVES: Cotton or leather. EYE PROTECTION: Goggles or glasses

OTHER PROTECTIVE EQUIPMENT: Low oxygen alarm where necessary; Safety shoes

---

## SECTION IX--SPECIAL PRECAUTIONS

---

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:  
Protect containers from physical damage. Use only DOT or ASME coded storage vessels. Follow normal compressed gas storage practices. Store in cool and dry ventilated areas.

OTHER PRECAUTIONS: Refer to CGA Bulletin SB-2 and pamphlets P-9 and P-14.  
SB-2 -- "Oxygen Deficient Atmospheres"  
P-9 -- "The Inert Gases Argon, Nitrogen and Helium"  
P-14 -- "Accident Prevention in Oxygen-Rich and Oxygen-Deficient Atmospheres"

Use a check valve or trap in the nitrogen cylinder discharge line to prevent hazardous backflow. Cylinders or containers must not be recharged except by or with the consent of Liquid Carbonic.

No guaranty is made as to the accuracy of any data or statement contained herein. While this material is furnished in good faith, NO WARRANTY EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE IS MADE. This material is offered only for your consideration, investigation and verification and Liquid Carbonic shall not in any event be liable for special, incidental or consequential damages in connection with its publication.